

Trainer's Guide

Module 5.1

Basic communication means



Presenter's name: _____

Date: _____

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5.1 Gaze and joint attention

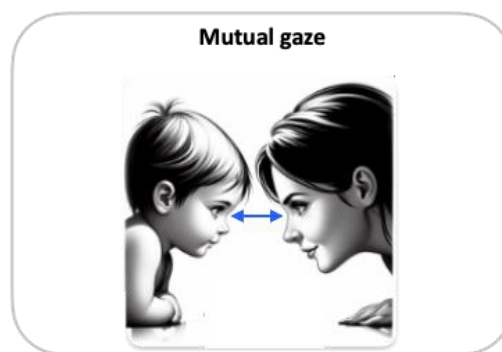
Learning objectives

By the end of the section, you will understand:

- how gaze is involved in communicative situations
- and why gaze is very important.

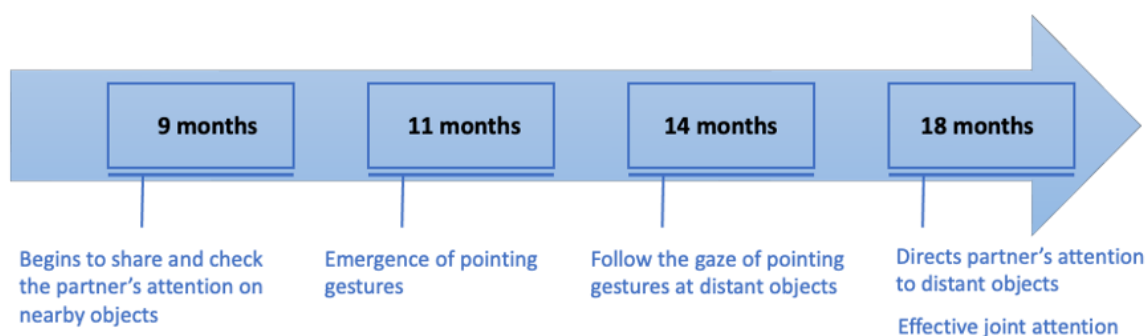
Content

Gaze is among the important means involved in communication. It is the act of looking, intently, or not. During a face-to-face interaction between two people, both persons look at each other and exchange different signals among which is gaze. On the one hand, with eye gaze, we perceive information from our interaction partners, and, on the other hand, our eye gaze specifies to our interaction partners what we pay attention to. In addition, the eyes in the facial expression also contribute to indicate how we feel, our emotional state.



NB: The illustration is generated by artificial intelligence.

Gaze tracking, also called joint visual attention, corresponds to the child's ability to follow another person's gaze towards an object or event (Butterworth & Cochran, 1980). This ability emerges at the end of the first year of life (Corkum & Moore, 1995) and is an important precursor to the development of joint attention (D'Entremont et al., 1997).

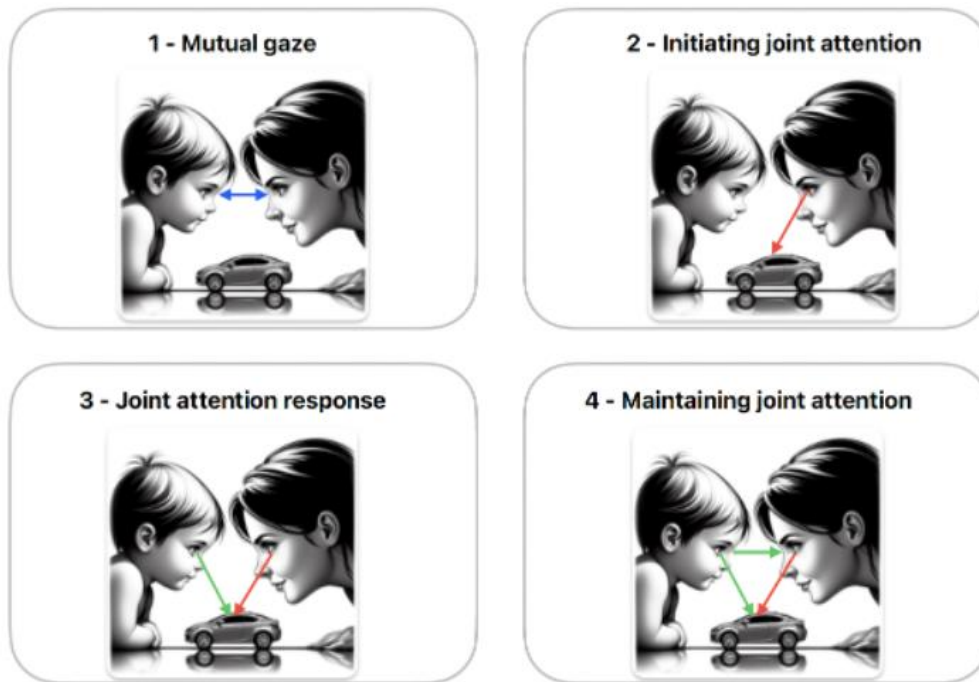


Several studies have identified a link between gaze tracking and language acquisition (Bruner, 1983; Mundy & Gomes, 1998; Tomasello, 2003). During interaction, the partner names the objects they are looking at, and the child follows their gaze to identify the named object. The child thus uses gaze as a relevant cue to associate a verbal label with an object. This ability to follow the gaze of others is subdivided into two components: (1) following the direction of gaze and (2) visually processing the object being looked at (Okumura et al., 2017). In other words, following the direction of gaze allows the child to process the object being looked at and that this ability influences the development of the child's expressive vocabulary. Furthermore, the child's gaze, and in particular the alternation of gaze between the communication partner and an object or event, indicates that the child intends to communicate (Camaioni et al., 2004).

Joint attention occupies a special place in the child's communicative development. It takes the form of episodes of triadic exchange between the child, the communication partner (usually a parent) and an object or event (Tomasello, 2003).



In this context, joint attention is a precursor of pointing, intentionality, and language (Kristen et al., 2011). Beyond the simple initial mutual gaze between child and adult, joint attention is a more elaborate behaviour divided into three main components (Beuker et al., 2013) : (1) the child alternates his/her gaze between the object and his/her partner in order to draw the partner's attention to the object, (2) the child follows the partner's gaze or pointing direction towards an object, and (3) the child directs the partner's attention towards an object or event with communicative intent.



NB: The illustration is generated by artificial intelligence.

The onset of joint attention behaviour is delayed in infants with IDD (Greenwald & Leonard, 1979; Smith & von Tetzchner, 1986). In general, there are difficulties in coordinating their attention with that of their partner. This leads to a poor alternation in the focus of attention between an object and the partner (Sigman et al., 1999).

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Greenwald, C. A., & Leonard, L. B. (1979). Communicative and sensorimotor development of Down's syndrome children. *American Journal of Mental Deficiency*, 84(3), 296-303.

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Tomasello, M. (1995). Joint attention as social cognition. In *Joint attention : Its origins and role in development* (p. 103-130). Lawrence Erlbaum Associates, Inc.

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2. Materials Needed

The slides for this presentation (COM-IN_PR3_5_1_Gaze and Joined Attention_EN.pptx).

A videoprojector



Co-funded by
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3. Slides and trainer's notes

Slide n° 2



Module 5. Basic communication means



Chapter 1: Gaze
Chapter 2: Pointing
Chapter 3: Imitation
Chapter 4: Gestures

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Content :

Notes :

Slide n° 3



Module 5. Basic communication means



Chapter 1: Gaze

Learning Objectives

- Understand how gaze is involved in communicative situations
- Why gaze is very important


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Content :

Notes :


Slide n° 4

**Module 5. Basic communication means**
Chapter 1: Gaze



Gaze:
Act of looking, intently, or not

Mutual gaze



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Content :

Gaze is among the important means involved in communication. It is the act of looking, intently, or not.

During a face-to-face interaction between two people, both persons look at each other and exchange different signals among which is gaze.

On the one hand, with eye gaze, we perceive information from our interaction partners,

and, on the other hand, our eye gaze specifies to our interaction partners what we pay attention to.

In addition, the eyes in the facial expression also contribute to indicate how we feel, our emotional state.

Notes :

Slide n° 5



Module 5. Basic communication means Chapter 1: Gaze



Gaze tracking or joint visual attention

Ability to follow another's person gaze towards an object or event

Precursor to the development of joint attention

Individuals share attention on an object or an event

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Content :

Gaze tracking, also called joint visual attention, corresponds to the child's ability to follow another person's gaze towards an object or event (Butterworth & Cochran, 1980).

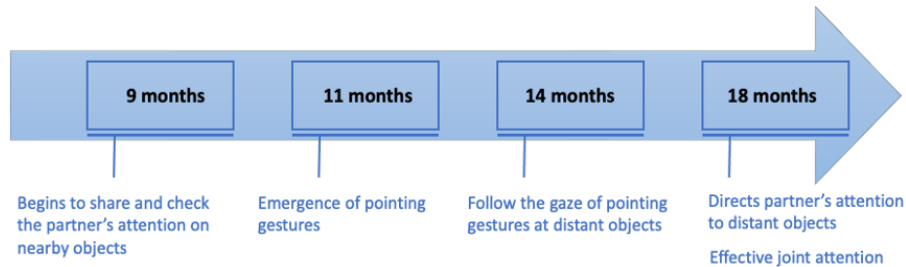
This ability emerges at the end of the first year of life (Corkum & Moore, 1995) and is an important precursor to the development of joint attention (D'Entremont et al., 1997).

Notes :

Slide n° 6



Module 5. Basic communication means Chapter 1: Gaze



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Content :

Joint visual attention ability emerges at the end of the first year of life (Corkum & Moore, 1995). It is an important precursor to the development of joint attention (D'Entremont et al., 1997). Its development is associated with the development of other abilities:

- Pointing gestures
- Follow the gaze of pointing gestures at distinct objects
- Direct partner's attention to distinct objects.

Notes :

Slide n° 7



Module 5. Basic communication means

Chapter 1: Gaze



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The partner names the object they are looking at



The child follows the gaze to identify the named object

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Content :

Several studies have identified a link between gaze tracking and language acquisition (Bruner, 1983; Mundy & Gomes, 1998; Tomasello, 2003).

During interaction, the partner names the objects they are looking at, and the child follows their gaze to identify the named object.

The child thus uses gaze as a relevant cue to associate a verbal label with an object.

This ability to follow the gaze of others is subdivided into two components:

- (1) following the direction of gaze and
- (2) visually processing the object being looked at (Okumura et al., 2017).

In other words, following the direction of gaze allows the child to process the object being looked at and that this ability influences the development of the child's expressive vocabulary. Furthermore, the child's gaze, and in particular the alternation of gaze between the communication partner and an object or event, indicates that the child intends to communicate (Camaioni et al., 2004).

Notes :

Slide n° 8



Module 5. Basic communication means Chapter 1: Gaze



Precursor of pointing, intentionality, and language

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Content :

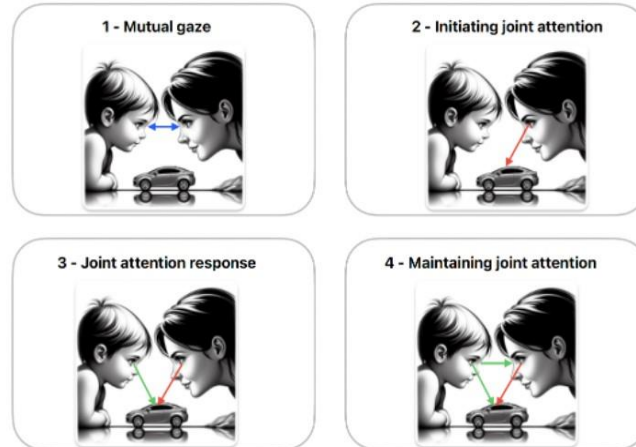
Joint attention occupies a special place in the child's communicative development. It takes the form of episodes of triadic exchange between the child, the communication partner (usually a parent) and an object or event (Tomasello, 2003). In this context, joint attention is a precursor of pointing, intentionality (i.e. having an intention and understanding that others also have intentions), and language (Kristen et al., 2011). Beyond the simple initial mutual gaze between child and adult, joint attention is a more elaborate behaviour divided into three main components (Beuker et al., 2013) : (1) the child alternates his/her gaze between the object and his/her partner in order to draw the partner's attention to the object, (2) the child follows the partner's gaze or pointing direction towards an object, and (3) the child directs the partner's attention towards an object or event with communicative intent.

Notes :

Slide n° 9



Module 5. Basic communication means Chapter 1: Gaze



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Content :

Mutual gaze is simple, it corresponds to a gaze exchange between child and adult (picture 1). Beyond mutual gaze, there are different steps in joint attention:

- Initiating joint attention (picture 2) where the adult looks at the object,
- Joint attention response (picture 3) where the child follows the adult's gaze and also looks at the object,
- Maintaining joint attention (picture 4) where the child alternates his/her gaze between the object and his/her partner in order to draw the partner's attention to the object.

Notes :

Slide n° 10



Module 5. Basic communication means



Activity

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Content :

This activity is to show how joint attention works

Materials: Tables, some toys, printed letters of the alphabet, a ruler

Arrangement: Objects are placed on a first table. Printed letters are placed on a second table.

Procedure: The game is played in pairs. First, one person guesses the object the other is looking at. The second person guesses a word using the letters seen by his/her partner.

A metre stick is provided. This is used, particularly if there are difficulties, to help identify the direction of the participant's gaze. The participants then discuss of joint attention and of gaze (how it is useful, how it is difficult to perceive...).

Notes :

Slide n° 11



Module 5. Basic communication means Chapter 1: Gaze



Onset of joint attention behavior delayed in IDD

Difficulties in coordinating attention

Poor alternation in the focus of attention between an object and the partner

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Content :

The onset of joint attention behaviour is delayed in infants with IDD (Greenwald & Leonard, 1979; Smith & von Tetzchner, 1986). In general, there are difficulties in coordinating their attention with that of their partner. This leads to a poor alternation in the focus of attention between an object and the partner (Sigman et al., 1999).

Notes :

Slide n° 12



Module 5. Basic communication means Chapter 1: Gaze



BIBLIOGRAPHY

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Content :

Notes :